

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>SPEN-15W0</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 01/ 40579</b>	International filing date (day/month/year) <b>23/04/2001</b>	(Earliest) Priority Date (day/month/year) <b>25/04/2000</b>
Applicant <b>SPENCE, Paul, A.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**SUPPLEMENTAL BLOOD PUMP, METHODS AND SYSTEMS FOR SUPPLEMENTING BLOOD FLOW**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/40579

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61M1/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M A61N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 743 845 A (RUNGE THOMAS M) 28 April 1998 (1998-04-28)	12, 14, 15
Y	the whole document	13, 16-18
X	WO 99 59652 A (A MED SYSTEMS INC) 25 November 1999 (1999-11-25)	12, 14
Y	page 32, line 23 -page 34, line 7; figure 2	13, 16-18
X	US 2 935 068 A (SHEARMAN DONALDSON JOHN) 3 May 1960 (1960-05-03)	12, 15
Y	column 2, line 51 -column 3, line 17; figure 4	13, 16-18
X	US 4 995 857 A (ARNOLD JOHN R) 26 February 1991 (1991-02-26)	12, 15
Y	figures 2A, 2B, 5-8	13, 16-18
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

9 November 2001

Date of mailing of the international search report

15/11/2001

Name and mailing address of the ISA

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Authorized officer

Villeneuve, J-M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/40579

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 97 42413 A (UNIV UTAH) 13 November 1997 (1997-11-13) page 24, line 24 - line 37; figures 3,8 ---	16-18
X	US 5 948 006 A (MANN CARLA M) 7 September 1999 (1999-09-07)	19
Y	the whole document -----	13

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 12-18

a system for supplementing blood flow from the heart of a patient

2. Claims: 12,13,19

a transcutaneous power supply

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/40579

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-11  
because they relate to subject matter not required to be searched by this Authority, namely:  
**Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery**
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US. 01/40579

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5743845	A	28-04-1998	NONE	
WO 9959652	A	25-11-1999	AU 4189499 A EP 1082150 A1 WO 9959652 A1	06-12-1999 14-03-2001 25-11-1999
US 2935068	A	03-05-1960	NONE	
US 4995857	A	26-02-1991	NONE	
WO 9742413	A	13-11-1997	AU 735578 B2 AU 2827697 A BR 9709047 A CA 2253435 A1 CN 1226307 A EP 0897476 A1 JP 2000510928 T WO 9742413 A1 US 6074180 A	12-07-2001 26-11-1997 04-01-2000 13-11-1997 18-08-1999 24-02-1999 22-08-2000 13-11-1997 13-06-2000
US 5948006	A	07-09-1999	US 6275737 B1	14-08-2001